

GRADE 1 SUPPLEMENT

Set A11 Multi-Digit Addition & Subtraction on the Farm (Alternate Unit 6 Plan)

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Skills & Concepts

- ★ use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions
- ★ count, read, and write to 100, starting at any number less than 100
- ★ represent a number of objects with a written numeral
- ★ add and subtract 2-digit numbers
- ★ identify, name, describe, and compare 2-D shapes, including squares and rectangles
- ★ create a 2-D shape with specific defining attributes
- create a composite shape by composing 2-D shapes
- ★ compose a new shape using composite 2-D shapes
- ★ organize, represent, and interpret data with up to three categories
- ★ ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another



Bridges in Mathematics Grade 1 Supplement

Set A11 Multi-Digit Addtion & Subtraction on the Farm Alternate Unit 6 Plan

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Prepared for publication on Macintosh Desktop Publishing system.

Printed in the United States of America.

P0511

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Thanks to Shelly Scheafer, Tena Paulson, and Vicky Hanna of Bend, Oregon, along with contributions by Bridges author Donna Burk for the development of this supplement.

Bridges in Mathematics is a standards-based K–5 curriculum that provides a unique blend of concept development and skills practice in the context of problem solving. It incorporates the Number Corner, a collection of daily skill-building activities for students.

The Math Learning Center is a nonprofit organization serving the education community. Our mission is to inspire and enable individuals to discover and develop their mathematical confidence and ability. We offer innovative and standards-based professional development, curriculum, materials, and resources to support learning and teaching. To find out more, visit us at www.mathlearningcenter.org.

Set A11 ★ Introduction

Unit 6 (My Little Farm) Planning Guide Revision

The National Council of Teachers of Mathematics [NCTM] Standards emphasize the importance of problem solving in real-world contexts to make mathematics education meaningful and relevant for children (2000). *Bridges in Mathematics* does this in many ways, and two examples are offered in the first grade curriculum in the integrated units, *Penguins* (Unit 4), and *My Little Farm* (Unit 6).

The second of these units, *My Little Farm*, is an integrated, thematic unit designed to take the better part of 18 instructional days. Unfortunately, many teachers have scheduling conflicts and other curriculum requirements that make it difficult to devote the necessary time to implement the unit as written. For these reasons, an alternative six-week schedule that keeps the integrity of this real-world unit, but fits into a 60-minute time frame, has been developed.

In Unit 6, students use "farm bucks" to purchase land and animals, follow Land Use Planning Codes, and make decisions to create a model farm. Money, place-value, adding and subtracting 2-digit numbers, and mapping are the major skills addressed in this unit. Students also work with area and perimeter, bar graphs, problem solving, shapes, fractions, symmetry and several complimentary standards from other curricular areas. *My Little Farm* serves as a compilation of many math skills learned during the first grade year and provides students a meaningful, engaging context in which to apply these skills.

Notable Unit Planner Changes

- 1. During session 2, students make their farm folders and receive the "farm bucks." Using the dollar amounts on the Model Farm Land-Use Planning Codes and the 2nd set of pictures from session 1 (Blacklines 6.1 and 6.2), students practice using the money to show amounts for "mock" purchases. For example, if the teacher put the goat cut out in the pocket chart or under the document camera, students would count out \$8 dollars in farm bucks, the cost of the goat. If the teacher displayed a cow (\$10) and a sheep (\$7), students would count out \$17 in farm bucks (10+7=17).
- 2. Sessions 8 and 13 each include a new place value and cost comparison sheet. This activity provides a mathematical comparison after the sorting worksheet in these sessions. It uses the familiar double hundreds chart used in other grade 1 activities to compare the cost of two total purchases and is similar to the Hens and Horse hundreds grid activities in sessions 17 and 19.
- 3. The animal fences are separate purchase sessions (9 and 14) with an optional 2-dimensional fence blackline provided on page A11.9 in this Supplement Set. We felt additional focus on the concepts of area and perimeter is beneficial for first grade students since these concepts are often confused.
- 4. Two additional bar graphs, taken from Bridges 1st grade Supplement Set E1 (available on the MLC website), compliment the bar graph already presented in this unit. These are found in sessions 1, 21, and 25.
- 5. Students write and illustrate their own farm story problems at the end of Unit 6.
- 6. Bridges Grade 1 practice book pages are used to enhance lessons and to provide Home Connection activities for weeks when a Home Connection is not available.

Introduction (cont.)

Optional Revisions

- 1. Consider using a central print shop, if available, to cut the "Farm Bucks" eliminating the need for students to cut the money. The revised "Farm Bucks" masters are realigned for this purpose. (The teacher or parent helper could also cut these for the students). The cut out "Farm Bucks" are needed starting in Session 2.
- 2. An optional 2-dimensional fence blackline on page A11.10 in this Supplement Set may be used instead of Blackline 6.24. This fence works similarly to the tile and linear pieces used in other grades, but loses the 3-D effect. It is straight cuts on a paper cutter and students simply glue the fence strips flat around their land squares.

Farm Model Choices

The directions given in the Bridge's teacher manual are for each child to make his or her own 24" × 24" inch model farm. If this seems like a big undertaking due to space, material preparation, or management, one of the following options may work better for you.

Half-Scale Model Farms

The student farm models may be scaled to $12" \times 12"$ inch mats. Inexpensive, $12" \times 12"$ cardstock used for scrapbooks or classroom construction paper could be used. (You will need to draw the lines for the land squares if you use cardstock). The land squares would be cut to $1\frac{1}{2}" \times 1\frac{1}{2}"$. The farm cutouts could be reduced 50% on a copy machine. The tabs should be made slightly larger to make is easier for small hands to glue the tabs onto the mats. The half-scale model is easier to store and reduces the amount of paper used in the total project.

Small Group Model Farms

In this option, the 24"×24" farm model is made by a small group of 2–4 students. Each child completes his or her own purchasing sheets and map, but the land choices and buying decisions are made by the group and carried out on the group farm model. A photo of the students with their group model could be added to each child's farm folder, beside his or her map. Depending on the number of groups, the amount of cardstock and preparation work involved is proportionately reduced. Management of the project may be easier since the teacher is helping small groups rather than individual students.

Storing the Farm Mats During the Farm Unit

The 24"×24" inch mats can easily be hung from a chart rack or ceiling hooks if the butcher paper is doubled to 24"×48", folded in half, and a metal hanger is placed between the folds. Open the paper up flat, on the fold line, and measure in 10 inches from each edge. Make a 4-inch slit in the center of the paper. Slip a metal coat hanger through the slit and secure with packaging tape (See Figure 1). Fold the paper again and the hook part of the hanger will stick out making the mat easy to hang when not in use (See Figure 2). If you would prefer not to double the paper, a hanger may be taped on the back of the mat. Mats may also be stacked, if you don't mind the farm cutouts being flattened.

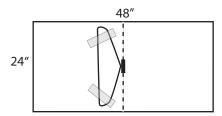


Figure 1: Hanger inside of the Farm Mat

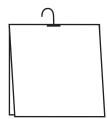


Figure 2: Hanger outside of the Farm Mat

Unit 6 Planner (Replaces Bridges, Grade 1, Vol. 3, pp. 747–749)

The activities originally designed to take 18 full days of classroom instruction have been resequenced, and in some cases, modified or eliminated so that the unit can be taught over the course of 30 math sessions instead. The Blacklines you'll need for the activities in each session have been included on the planner for your convenience. (The specified quantities of Blacklines that involve cardstock cut-outs for the farms assume that each student will be making his or her own; change these if this is not the case. Also, these plans assume that you are going to give students pre-cut Farm Bucks (pages A11.13, A11.15, and A11.17) that you've either cut on the paper cutter, or had cut at your Central Print Shop.)

SESSION 1	SESSION 2	SESSION 3	SESSION 4	SESSION 5
Problems & Investigations	Problems & Investigations	Problems & Investigations	Problems & Investigations	Problems & Investigations
Bar Graph: Which Farm	Preparing Farm Folders,	Laying out the Road and	Barn, Silo, & Tractor,	Mapping the Farm,
Story Should We Read?	p. 771	the Land for the House,	p. 787	pp. 799–803
(See Supplement Set E1,	Give each student a	pp. 776–779	Laying out the Land for	
Activity 1)	sack of pre-cut Farm	Buying the Land & Put-	the Barn, Silo, & Tractor,	Home Connection 15
• What do we know? pp.	Bucks. Have students	ting Up the House, pp.	pp. 788–791	p. 783
764–765	practice laying out money	779–782	Buying the Land, Barn, &	
• The Model Farm: Shar-	for pretend purchases		Silo, pp. 792–794	Blacklines
ing the Project Pieces, pp.	(see Notable Unit Planner	Blacklines		• BL 6.21, class set plus a
765–768	Changes, #1, on p. A11.1 in	• BL 6.7, half class set cut	Blacklines	few extra
	this Supplement Set)	in half plus 1 copy for	• BL 6.10, half-class set	• BL HC 15.1–15.8, class set
Blacklines		demonstration purposes	plus 1 extra, cut in half	
• Song & Poetry Portfolio,	Blacklines	• BL 6.9, class set plus a	BL 6.11, half class set cut	
pp. 6.1–6.6, 1 copy	• BL 6.8, 6.13, 6.16, 6.17,	few extra	in half	
• BL 6.1 & 6.2 (make 2	1 copy of each sheet		• BL 6.12, one-sixth class	
sets, 1 for today and 1 for	posted near your discus-		set, cut apart	
tomorrow)	sion circle. Leave these		• BL 6.14-6.15, class set of	
• BL 6.3, class set	up for the duration of		each plus a few extra	
	the unit.			
CECCIONE A				
SESSION 6	SESSION 7	SESSION 8	SESSION 9	SESSION 10
SESSION 6 Problems & Investigations	SESSION 7 Problems & Investigations	SESSION 8 Problems & Investigations	SESSION 9 Problems & Investigations	SESSION 10 Problems & Investigations
Problems & Investigations • Learning About Goats,	Problems & Investigations • Learning About Sheep,	1	Problems & Investigations • Area, Perimeter, Arrays:	Problems & Investigations • Add fence for goats
Problems & Investigations • Learning About Goats, p. 797	Problems & Investigations • Learning About Sheep, p. 816	Problems & Investigations • Sorting Worksheet, p. 824	Problems & Investigations • Area, Perimeter, Arrays: Purchasing Fences for	Problems & Investigations • Add fence for goats and sheep to farm
Problems & InvestigationsLearning About Goats,p. 797Buying Goats & Land,	Problems & Investigations • Learning About Sheep, p. 816 • Buying sheep & land,	Problems & Investigations • Sorting Worksheet, p. 824 • Goat/Sheep Place Value	Problems & Investigations • Area, Perimeter, Arrays: Purchasing Fences for Goats, pp. 813–814, and	Problems & Investigations • Add fence for goats and sheep to farm (optional 2-D fence strips
• Learning About Goats, p. 797 • Buying Goats & Land, pp. 810 & 814 (skip buy-	Problems & Investigations • Learning About Sheep, p. 816 • Buying sheep & land, pp. 821–824 (skip buying	Problems & Investigations • Sorting Worksheet, p. 824 • Goat/Sheep Place Value & Cost Comparison Sheet	Problems & Investigations • Area, Perimeter, Arrays: Purchasing Fences for	• Add fence for goats and sheep to farm (optional 2-D fence strips may be used)
Problems & InvestigationsLearning About Goats,p. 797Buying Goats & Land,	Problems & Investigations • Learning About Sheep, p. 816 • Buying sheep & land,	Problems & Investigations • Sorting Worksheet, p. 824 • Goat/Sheep Place Value & Cost Comparison Sheet (see Notable Unit Planner	Problems & Investigations • Area, Perimeter, Arrays: Purchasing Fences for Goats, pp. 813–814, and Sheep, pp. 823–824	Problems & Investigations • Add fence for goats and sheep to farm (optional 2-D fence strips
 Problems & Investigations Learning About Goats, p. 797 Buying Goats & Land, pp. 810 & 814 (skip buying fence until Session 9) 	Problems & Investigations • Learning About Sheep, p. 816 • Buying sheep & land, pp. 821–824 (skip buying fence until Session 9)	Problems & Investigations Sorting Worksheet, p. 824 Goat/Sheep Place Value Cost Comparison Sheet (see Notable Unit Planner Changes, #2, on p. A11.1	Problems & Investigations • Area, Perimeter, Arrays: Purchasing Fences for Goats, pp. 813–814, and Sheep, pp. 823–824 Blacklines	• Add fence for goats and sheep to farm (optional 2-D fence strips may be used) • Update Farm Map, p. 802
Problems & Investigations • Learning About Goats, p. 797 • Buying Goats & Land, pp. 810 & 814 (skip buying fence until Session 9) Blacklines	Problems & Investigations • Learning About Sheep, p. 816 • Buying sheep & land, pp. 821–824 (skip buying fence until Session 9) Blacklines	Problems & Investigations • Sorting Worksheet, p. 824 • Goat/Sheep Place Value & Cost Comparison Sheet (see Notable Unit Planner	Problems & Investigations • Area, Perimeter, Arrays: Purchasing Fences for Goats, pp. 813–814, and Sheep, pp. 823–824 Blacklines • Students will need	• Add fence for goats and sheep to farm (optional 2-D fence strips may be used) • Update Farm Map, p. 802
Problems & Investigations • Learning About Goats, p. 797 • Buying Goats & Land, pp. 810 & 814 (skip buying fence until Session 9) Blacklines • Song & Poetry Portfolio,	Problems & Investigations • Learning About Sheep, p. 816 • Buying sheep & land, pp. 821–824 (skip buying fence until Session 9) Blacklines • Song & Poetry Portfolio,	Problems & Investigations Sorting Worksheet, p. 824 Goat/Sheep Place Value Cost Comparison Sheet (see Notable Unit Planner Changes, #2, on p. A11.1 in this Supplement Set)	Problems & Investigations • Area, Perimeter, Arrays: Purchasing Fences for Goats, pp. 813–814, and Sheep, pp. 823–824 Blacklines • Students will need their copies of BL 6.26	• Add fence for goats and sheep to farm (optional 2-D fence strips may be used) • Update Farm Map, p. 802
Problems & Investigations • Learning About Goats, p. 797 • Buying Goats & Land, pp. 810 & 814 (skip buying fence until Session 9) Blacklines • Song & Poetry Portfolio, pp. 6.7–6.10, 1 copy	Problems & Investigations • Learning About Sheep, p. 816 • Buying sheep & land, pp. 821–824 (skip buying fence until Session 9) Blacklines • Song & Poetry Portfolio, pp. 6.11–6.14, 1 copy	Problems & Investigations Sorting Worksheet, p. 824 Goat/Sheep Place Value Cost Comparison Sheet (see Notable Unit Planner Changes, #2, on p. A11.1 in this Supplement Set) Blacklines	Problems & Investigations • Area, Perimeter, Arrays: Purchasing Fences for Goats, pp. 813–814, and Sheep, pp. 823–824 Blacklines • Students will need their copies of BL 6.26 and 6.28, partially filled	Problems & Investigations Add fence for goats and sheep to farm (optional 2-D fence strips may be used) Update Farm Map, p. 802 Home Connection 16 p. 836
Problems & Investigations • Learning About Goats, p. 797 • Buying Goats & Land, pp. 810 & 814 (skip buying fence until Session 9) Blacklines • Song & Poetry Portfolio, pp. 6.7–6.10, 1 copy • BL 6.22, class set	Problems & Investigations • Learning About Sheep, p. 816 • Buying sheep & land, pp. 821–824 (skip buying fence until Session 9) Blacklines • Song & Poetry Portfolio, pp. 6.11–6.14, 1 copy • BL 6.27, class set	Problems & Investigations Sorting Worksheet, p. 824 Goat/Sheep Place Value Cost Comparison Sheet (see Notable Unit Planner Changes, #2, on p. A11.1 in this Supplement Set) Blacklines BL 6.30–6.31, class set	Problems & Investigations • Area, Perimeter, Arrays: Purchasing Fences for Goats, pp. 813–814, and Sheep, pp. 823–824 Blacklines • Students will need their copies of BL 6.26 and 6.28, partially filled in during Sessions 6 and	Problems & Investigations Add fence for goats and sheep to farm (optional 2-D fence strips may be used) Update Farm Map, p. 802 Home Connection 16 p. 836 Blacklines
Problems & Investigations • Learning About Goats, p. 797 • Buying Goats & Land, pp. 810 & 814 (skip buying fence until Session 9) Blacklines • Song & Poetry Portfolio, pp. 6.7–6.10, 1 copy • BL 6.22, class set • BL 6.25, 3–4 copies	Problems & Investigations • Learning About Sheep, p. 816 • Buying sheep & land, pp. 821–824 (skip buying fence until Session 9) Blacklines • Song & Poetry Portfolio, pp. 6.11–6.14, 1 copy • BL 6.27, class set • BL 6.28, class set	Problems & Investigations Sorting Worksheet, p. 824 Goat/Sheep Place Value Cost Comparison Sheet (see Notable Unit Planner Changes, #2, on p. A11.1 in this Supplement Set) Blacklines BL 6.30-6.31, class set of each sheet, plus extra	Problems & Investigations • Area, Perimeter, Arrays: Purchasing Fences for Goats, pp. 813–814, and Sheep, pp. 823–824 Blacklines • Students will need their copies of BL 6.26 and 6.28, partially filled in during Sessions 6 and 7 to record their fence	Problems & Investigations Add fence for goats and sheep to farm (optional 2-D fence strips may be used) Update Farm Map, p. 802 Home Connection 16 p. 836 Blacklines Bl 6.21—saved from
Problems & Investigations • Learning About Goats, p. 797 • Buying Goats & Land, pp. 810 & 814 (skip buying fence until Session 9) Blacklines • Song & Poetry Portfolio, pp. 6.7–6.10, 1 copy • BL 6.22, class set • BL 6.25, 3–4 copies • BL 6.26, class set	Problems & Investigations Learning About Sheep, p. 816 Buying sheep & land, pp. 821–824 (skip buying fence until Session 9) Blacklines Song & Poetry Portfolio, pp. 6.11–6.14, 1 copy BL 6.27, class set BL 6.28, class set (ignore fence part on p.	Problems & Investigations Sorting Worksheet, p. 824 Goat/Sheep Place Value Cost Comparison Sheet (see Notable Unit Planner Changes, #2, on p. A11.1 in this Supplement Set) Blacklines BL 6.30–6.31, class set	Problems & Investigations • Area, Perimeter, Arrays: Purchasing Fences for Goats, pp. 813–814, and Sheep, pp. 823–824 Blacklines • Students will need their copies of BL 6.26 and 6.28, partially filled in during Sessions 6 and	Problems & Investigations Add fence for goats and sheep to farm (optional 2-D fence strips may be used) Update Farm Map, p. 802 Home Connection 16 p. 836 Blacklines BL 6.21—saved from Session 5
Problems & Investigations • Learning About Goats, p. 797 • Buying Goats & Land, pp. 810 & 814 (skip buying fence until Session 9) Blacklines • Song & Poetry Portfolio, pp. 6.7–6.10, 1 copy • BL 6.22, class set • BL 6.25, 3–4 copies • BL 6.26, class set (ignore fence part on p.	Problems & Investigations • Learning About Sheep, p. 816 • Buying sheep & land, pp. 821–824 (skip buying fence until Session 9) Blacklines • Song & Poetry Portfolio, pp. 6.11–6.14, 1 copy • BL 6.27, class set • BL 6.28, class set (ignore fence part on p. 821 for now)	Problems & Investigations Sorting Worksheet, p. 824 Goat/Sheep Place Value Cost Comparison Sheet (see Notable Unit Planner Changes, #2, on p. A11.1 in this Supplement Set) Blacklines BL 6.30-6.31, class set of each sheet, plus extra	Problems & Investigations • Area, Perimeter, Arrays: Purchasing Fences for Goats, pp. 813–814, and Sheep, pp. 823–824 Blacklines • Students will need their copies of BL 6.26 and 6.28, partially filled in during Sessions 6 and 7 to record their fence	Problems & Investigations Add fence for goats and sheep to farm (optional 2-D fence strips may be used) Update Farm Map, p. 802 Home Connection 16 p. 836 Blacklines BL 6.21-saved from Session 5 BL 6.24, 3-4 sheets per
Problems & Investigations • Learning About Goats, p. 797 • Buying Goats & Land, pp. 810 & 814 (skip buying fence until Session 9) Blacklines • Song & Poetry Portfolio, pp. 6.7–6.10, 1 copy • BL 6.22, class set • BL 6.25, 3–4 copies • BL 6.26, class set	Problems & Investigations Learning About Sheep, p. 816 Buying sheep & land, pp. 821–824 (skip buying fence until Session 9) Blacklines Song & Poetry Portfolio, pp. 6.11–6.14, 1 copy BL 6.27, class set BL 6.28, class set (ignore fence part on p.	Problems & Investigations Sorting Worksheet, p. 824 Goat/Sheep Place Value Cost Comparison Sheet (see Notable Unit Planner Changes, #2, on p. A11.1 in this Supplement Set) Blacklines BL 6.30-6.31, class set of each sheet, plus extra	Problems & Investigations • Area, Perimeter, Arrays: Purchasing Fences for Goats, pp. 813–814, and Sheep, pp. 823–824 Blacklines • Students will need their copies of BL 6.26 and 6.28, partially filled in during Sessions 6 and 7 to record their fence	Problems & Investigations • Add fence for goats and sheep to farm (optional 2-D fence strips may be used) • Update Farm Map, p. 802 Home Connection 16 p. 836 Blacklines • BL 6.21–saved from Session 5 • BL 6.24, 3–4 sheets per student OR A11.10, 1–2
Problems & Investigations • Learning About Goats, p. 797 • Buying Goats & Land, pp. 810 & 814 (skip buying fence until Session 9) Blacklines • Song & Poetry Portfolio, pp. 6.7–6.10, 1 copy • BL 6.22, class set • BL 6.25, 3–4 copies • BL 6.26, class set (ignore fence part on p.	Problems & Investigations • Learning About Sheep, p. 816 • Buying sheep & land, pp. 821–824 (skip buying fence until Session 9) Blacklines • Song & Poetry Portfolio, pp. 6.11–6.14, 1 copy • BL 6.27, class set • BL 6.28, class set (ignore fence part on p. 821 for now)	Problems & Investigations Sorting Worksheet, p. 824 Goat/Sheep Place Value Cost Comparison Sheet (see Notable Unit Planner Changes, #2, on p. A11.1 in this Supplement Set) Blacklines BL 6.30-6.31, class set of each sheet, plus extra	Problems & Investigations • Area, Perimeter, Arrays: Purchasing Fences for Goats, pp. 813–814, and Sheep, pp. 823–824 Blacklines • Students will need their copies of BL 6.26 and 6.28, partially filled in during Sessions 6 and 7 to record their fence	Problems & Investigations Add fence for goats and sheep to farm (optional 2-D fence strips may be used) Update Farm Map, p. 802 Home Connection 16 p. 836 Blacklines BL 6.21-saved from Session 5 BL 6.24, 3-4 sheets per student OR A11.10, 1-2 sheets per student (Fence
Problems & Investigations • Learning About Goats, p. 797 • Buying Goats & Land, pp. 810 & 814 (skip buying fence until Session 9) Blacklines • Song & Poetry Portfolio, pp. 6.7–6.10, 1 copy • BL 6.22, class set • BL 6.25, 3–4 copies • BL 6.26, class set (ignore fence part on p.	Problems & Investigations • Learning About Sheep, p. 816 • Buying sheep & land, pp. 821–824 (skip buying fence until Session 9) Blacklines • Song & Poetry Portfolio, pp. 6.11–6.14, 1 copy • BL 6.27, class set • BL 6.28, class set (ignore fence part on p. 821 for now)	Problems & Investigations Sorting Worksheet, p. 824 Goat/Sheep Place Value Cost Comparison Sheet (see Notable Unit Planner Changes, #2, on p. A11.1 in this Supplement Set) Blacklines BL 6.30-6.31, class set of each sheet, plus extra	Problems & Investigations • Area, Perimeter, Arrays: Purchasing Fences for Goats, pp. 813–814, and Sheep, pp. 823–824 Blacklines • Students will need their copies of BL 6.26 and 6.28, partially filled in during Sessions 6 and 7 to record their fence	Problems & Investigations • Add fence for goats and sheep to farm (optional 2-D fence strips may be used) • Update Farm Map, p. 802 Home Connection 16 p. 836 Blacklines • BL 6.21–saved from Session 5 • BL 6.24, 3–4 sheets per student OR A11.10, 1–2

Unit 6 Farm Planning Guide (cont.)

SESSION 11	SESSION 12	SESSION 13	SESSION 14	SESSION 15
Problems & Investigations	Problems & Investigations	Problems & Investigations	Problems & Investigations	Problems & Investigations
Problems & Investigations Learning About Cows, p. 829 Buying Cows & Land, pp. 832–834 (skip buying the fence for now) Blacklines Song & Poetry Portfolio, pp. 6.15–6.18, 1 copy BL 6.32, class set BL 6.33, class set (ignore fence part for now, p. 832) BL 6.34, 6–7 copies	Problems & Investigations Learning About Pigs, p. 847 Buying Pigs & Land, pp. 848–849 (skip buying the fence for now) Blacklines Song & Poetry Portfolio, pp. 6.19–6.23, 1 copy BL 6.36, class set BL 6.37, class set (ignore fence part for now, p. 848) BL 6.38, 2–3 copies	Problems & Investigations Sorting Worksheet, p. 850 Cows/Pigs Place Value Cost Comparison Sheet (see Notable Unit Planner Changes, #2, on p. A11.1 in this Supplement Set) Blacklines BL 6.39–6.40, class set plus a few extra BL A11.12, class set	Problems & Investigations Area, Perimeter, Arrays: Purchasing Fences for Cows, p. 833, and Pigs, p. 850 If time permits, begin adding fences to farm. Blacklines Students will need their copies of BL 6.33 and 6.37, partially filled in during Sessions 11 and 12 to record their fence purchases.	Problems & Investigations Add fence for cows and Pigs to farm (optional 2-D fence strips may be used) Update Farm Map, p. 867 Home Connection Fact Practice & Daily Milk Production, Practice Book, pp. 64 & 72 Blacklines BL 6.21-saved from Session 5 More fence sections (BL 6.24 or A11.10, run as needed) Practice Book, pp. 64 &
				72, class set of each sheet
SESSION 16	SESSION 17	SESSION 18	SESSION 19	SESSION 20
 Problems & Investigations Learning About Chickens, p. 855 Buying Chickens, Hen House, Land, & Fence, pp. 856–859 	Problems & Investigations Add chicken purchases to farm, p. 856 Hens Hundreds Grid, pp. 868–871	Problems & Investigations • Learning About Horses, p. 875 • Buying Horses, Land & Fence, pp. 876 & 878 Blacklines	 Problems & Investigations Add horse purchases to farm, p. 876 Horses Hundreds Grid, p. 878 Blacklines	Problems & Investigations Sorting Worksheet, p. 886 Update Farm Map Practice Book, p. 69 Home Connection Winter Farming & Selling
• Song & Poetry Portfolio, pp. 6.24–6.32, 1 copy • BL 6.41–6.42, class set • BL 6.43–6.44, class set	BL 6.45, half class set, cut in half More fence sections (BL 6.24 OR A11.10, run as needed) BL 6.46, class set	 Song & Poetry Portfolio, pp. 6.33–6.37, 1 copy BL 6.47, class set BL 6.48, class set 	• BL 6.49, 6–7 copies cut apart • BL 6.50, class set	Your Farm Products, Practice Book, pp. 63 & 70 Blacklines BL 6.52–6.53, class set Practice Book, pp. 63, 69 & 70, class set of each
SESSION 21	SESSION 22	SESSION 23	SESSION 24	SESSION 25
Problems & Investigations Bar Graph: Which vegetable do you like best? (See Supplement Set E1, Activity 2) Learning About Plants on the Farm, p. 883	Problems & Investigations Planting Crops & Gardens on the Model Farms, p. 884 Update Farm Map Little Inchworm's Garden, Practice Book, p. 67	Problems & Investigations • Making a Farm Quilt, pp. 839–843 • Catch up on any work that hasn't been done on farms.	Problems & Investigations • Putting the Class Farm Quilt Together, p. 863 • Computation on a Number Chart, Practice Book, p. 71	• Would you Like to be A Farmer?, p. 920–921 • A Farmer's Morning & A Farmer's Afternoon, Practice Book, pp. 61 & 62
	Blacklines • BL 6.51, 2–3 copies, cut apart • Practice Book, p. 67, class set	Blacklines • BL 6.35, class set	Blacklines ● Practice Book, p. 71, class set	Home Connection 17 p. 880 Blacklines Bl. 6.65, class set Practice Book, p. 61 & 62, class set Bl. HC 17.1

Unit 6 Farm Planning Guide (cont.)

SESSION 26	SESSION 27	SESSION 28	SESSION 29	SESSION 30
Problems & Investigations	Problems & Investigations	Problems & Investigations	Problems & Investigations	Problems & Investigations
 Many Farm Animals 	Building 4's with Unifix	More Farm Animal Story	Have students make	Sharing Farm Story
Have 4 Legs, pp. 889-890	Cubes, pp. 907–912	Problems, p. 912	their own Farm Story	Problems and/or Sharing
 A Growing Pattern 	• Farm Animal Story Prob-		Problems for classmates	the Farms, p. 925
of Farm Animals, pp.	lems, p. 902	Blacklines	to solve. (See sessions in	
897–901		• BL 6.56–6.61, half-class	Units 1, 2, 3, and 4 that	Home Connection 18
	Blacklines	set or less of each sheet	involve student-made	p. 923
Blacklines	• BL 6.56–6.61, half-class	from Session 27	story problems for ideas	
• BL 6.55, 1 copy	set or less of each sheet		about how to do this.)	Blacklines
	BL 6.62, several copies			• BL HC 18.1–18.2, class set
	• 6.63, half-class set			

Set A11 ★ Advanced Preparation Planning Guide

Miscellaneous Information

The mathematics in this unit involves place value, money, 2-D geometry, area and perimeter, mapping, and double-digit computation. Before preparing materials for this unit you might consider the following:

- Do you want each student to make a model farm?
- Would you prefer students work in pairs or groups of 3-4 to make a model farm?
- Do you want the model farms to be made as recommended or do you want to reduce all the papers used for the model farm by 50%?

Your decision will determine the size and number of the needed materials.

Farm Folders See p. 771

On day two of the farm unit, students will make farm folders similar to the one shown on page 771 to keep their work in throughout the unit. You'll want to have paper cut to the following sizes for these folders. The quantities listed below are enough for one student to make a folder, so just multiply everything by the number of children in your class plus a few extra.

- 12"×18" piece of blue construction paper folded in half
- 6"×6" piece of red construction paper (barn)
- 3"×9" piece of green construction paper (grass)
- 3"×3" piece of yellow construction paper (sun)
- 3"×3" piece of white construction paper (clouds)

Materials for the Model Farms

Adjust the following based on what you have decided regarding the size of your model farms and the number of students who will be making each model farm. Quantities listed below are estimates for one student making a full-sized farm model.

- one, 24"×24" white butcher paper (farm mat, see p. 752 for advice about how to cut the butcher paper to this size.)
- twelve, 3"×3" squares of black construction paper (roads)
- sixteen, 3"×3" squares of brown construction paper (barn yards, pig pens, gardens)
- thirty-five to forty, 3"×3" squares of green construction paper (yards, pastures)
- five to seven, 3"×3" squares of yellow construction paper (wheat or other grasses)

Materials for The Heart Quilt Session 23, pp. 839–843 (Blackline 6.35)

Quantities listed below are enough for one student:

- nine, 1"×1" black construction paper squares
- eleven, 1"×1" white construction paper squares
- ten, 1"×1" blue construction paper squares
- six, 1"×1" green construction paper squares
- one, 6"×6" blue construction paper
- one, 3"×6" green construction paper
- one, 3"×6" black construction paper
- 2 or 3, white cotton balls

Advance Preparation Planning Guide (cont.)

Teaching Charts & Other Demonstration Materials

What-Do-You-Know? Recording Chart See p. 764

- Length of white butcher
- Blacklines 6.1 and 6.2

Graphic Organizer Chart See p. 751

- Large piece of butcher paper
- Blacklines 6.18–6.20

Model Farm Land-Use Planning Codes

- Blacklines 6.8, 6.13, 6.16, 6.17, 1 copy of each sheet
- 9"×12" construction paper for mounting blacklines

Copied Materials Needed for Model Farms

Farm Bucks (quantities listed are for each studetn)

- 3 sheets of p. A11.13 (\$1 bills), run on green copy paper
- 3 sheets of p. A11.15 (\$5 bills), run on blue copy paper
- 6 sheets of p. A11.17 (\$10 bills), run on yellow copy paper
- Run 20-30 extra copies of each sheet for class use as they run out of money.
- If the money is sent precut by your Central Printshop, each student needs (36) \$1 bills, (36) \$5 bills, and (72) \$10 bills in an envelope or bag for Session 2 and future purchase sessions. If this seems like too much for your students at one time, start with half the amount and be prepared to have extra money available for them during the purchasing sessions.

Barn, House, Silo Cutouts (quantities listed are for 2 farm models)

- Blackline 6.10, run on red construction paper or cardstock
- Blackline 6.11, run on red construction paper or cardstock
- Blackline 6.7, run on pastel construction paper or cardstock

Fence Sections (quantities listed are for 1 farm model)

- (3-4 sheets of) Blackline 6.24 on white cardstock or construction paper
- OR Blackline A11.10, 2-D Fence (run on cardstock, 1-2 sheets per farm model)

Tractor, Animals & Scarecrow

The following may be run on white cardstock or you may run some of the animals on colored cardstock or construction paper. Each model farm will need 1 tractor (6 per blackline) and 1 scarecrow (12 per blackline), plus 1 hen house and 6 hens (2 per blackline).

- Blackline 6.12, Tractor Cutouts
- Blackline 6.51, Scarecrow Cutouts
- Blackline 6.45, Hen & Hen House Cutouts

Run several sheets of the following for use by your whole class.

- Blackline 6.25, Goat Cutouts
- Blackline 6.29, Sheep Cutouts
- Blackline 6.34, Cow Cutouts
- Blackline 6.38, Pig Cutouts
- Blackline 6.49, Horse Cutouts

Advance Preparation Planning Guide (cont.)

Math Worksheets

Except where otherwise specified, run a class set plus a few extra.

Blacklines

- 6.9, House, Land & Road Payment worksheet
- 6.14, Barn Payment worksheet
- 6.15, Tractor & Silo Payment worksheet
- 6.21, My Little Farm Map
- 6.26, Goat Payment worksheet
- 6.28, Sheep Payment worksheet
- 6.33, Cow Payment worksheet
- 6.37, Pig Payment worksheet
- 6.43-6.44, Chicken Payment worksheet
- 6.46, Hens Hundreds Grid (Run a half class set.)
- 6.48, Horse Payment worksheet
- 6.50, Horses Hundreds Grid (Run a half class set.)
- 6.56-6.61, Farm Animal Story Problems 1-6 (Run a half class set of each sheet.)
- 6.62, Student Number Pattern Strips (Run enough sheets for each pair of children to have 1 strip.)
- 6.63, 4's Counting Board (Run a half class set.)
- p. A11.11, Goats-Sheep Hundreds Grid Comparison Worksheet
- p. A11.12, Cows-Pigs Hundreds Grid Comparison Worksheet

Practice Book Pages (needed for Home Connections & a few sessions)

- A Farmer's Morning, page 61
- A Farmer's Afternoon, page 62
- Winter Farming, page 63
- Fact Practice, page 64
- Little Inchworm's Garden, page 67
- Selling Your Farm Products, page 70
- Computation on a Number Chart, page 71
- Daily Milk Production, page 72

Farm Animal Sorting Worksheets

- Blacklines 6.30–6.31, Goats and Sheep
- Blacklines 6.39-6.40, Cattle and Pigs
- Blacklines 6.52-6.53, Chickens and Horses

Wall Charts

The Farm Poems

Use the portfolio pages to create wall charts or big books for this unit.

- Song & Poetry Portfolio, pp. 6.1-6.6, My Little Farm
- Song & Poetry Portfolio, pp. 6.7-6.10, Goats
- Song & Poetry Portfolio, pp. 6.11-6.14, Sheep
- Song & Poetry Portfolio, pp. 6.15-6.18, Cattle
- Song & Poetry Portfolio, pp. 6.19-6.23, Pigs

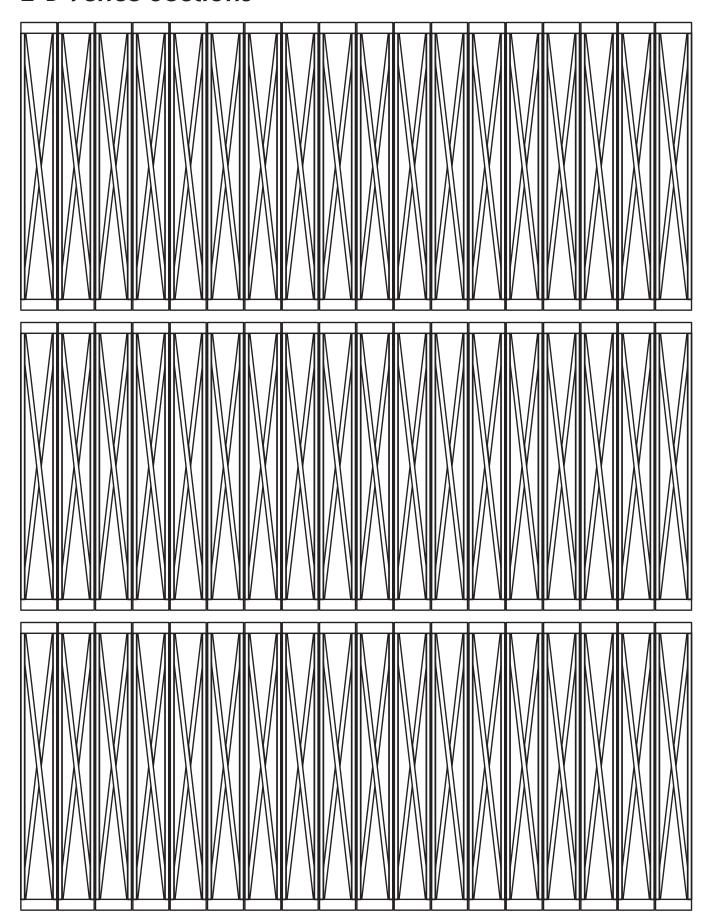
Advance Preparation Planning Guide (cont.)

- Song & Poetry Portfolio, pp. 6.24–6.27, Thank You, Chickens
- Song & Poetry Portfolio, pp. 6.28-6.32, Chickens
- Song & Poetry Portfolio, pp. 6.33–6.37, Horses

You'll find small versions of each poem on the following blacklines:

- Blackline 6.3, My Little Farm
- Blackline 6.22, Goats
- Blackline 6.27, Sheep
- Blackline 6.32, Cattle
- Blackline 6.36, Pigs
- Blackline 6.41, Thank You, Chickens
- Blackline 6.42, Chickens
- Blackline 6.47, Horses

2-D Fence Sections



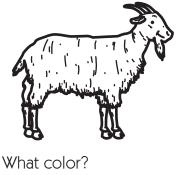
NAME

DATE

Goats-Sheep Hundreds Grid Comparison Worksheet

How Much Did You Spend?

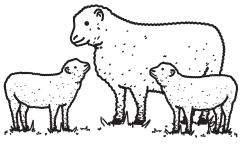
1 Color a box for each dollar you spent for land. Change colors and color a box for each dollar you spent to buy goats.





Goats

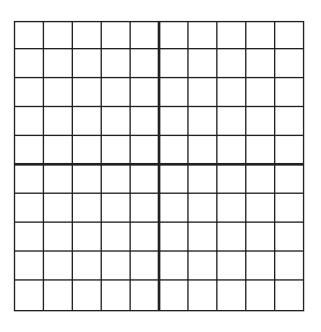
2 Color a box for each dollar you spent for land. Change colors and color a box for each dollar you spent to buy sheep.



What color?



Sheep



3 How much did you spend for land and goats? ______

4 How much did you spend for land and sheep? _____

5 Which cost more? _____ How much more? _____

6 How much did you spend altogether?

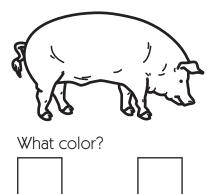
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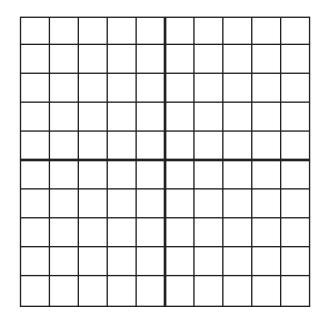
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Pigs-Cows Hundreds Grid Comparison Worksheet

How Much Did You Spend?

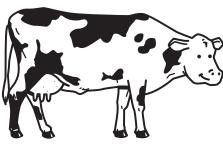
1 Color a box for each dollar you spent for land. Change colors and color a box for each dollar you spent to buy pigs.





2 Color a box for each dollar you spent for land. Change colors and color a box for each dollar you spent to buy cows.

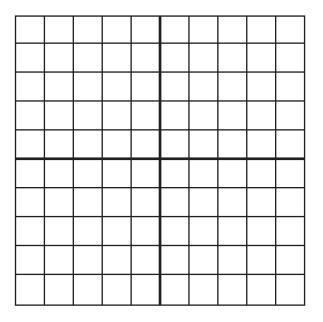
Pigs



What color?

Land

Cows

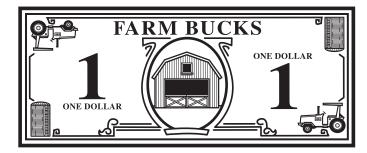


3 How much did you spend for land and pigs? _____

4 How much did you spend for land and cows?

5 Which cost more? _____ How much more? ____

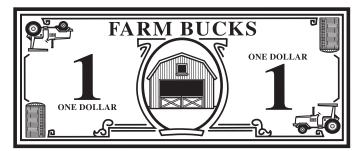
6 How much did you spend altogether? _____



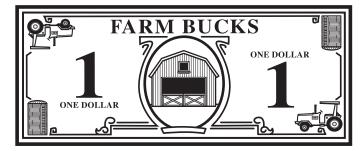




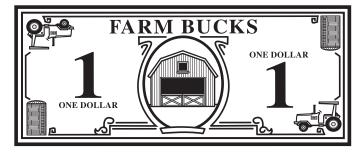










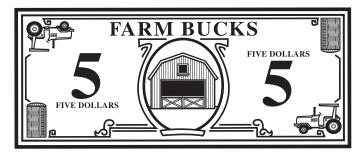






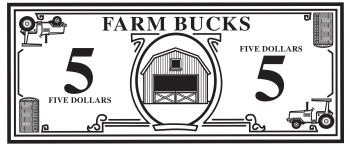


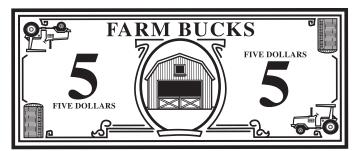
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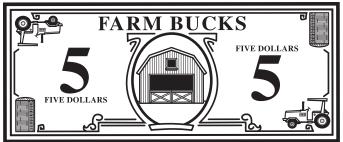


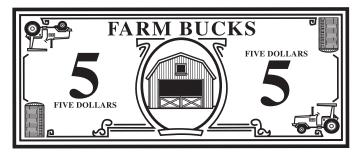




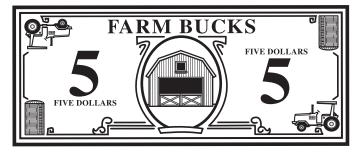




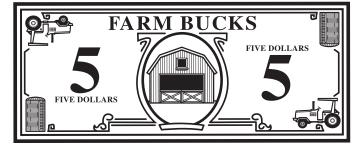






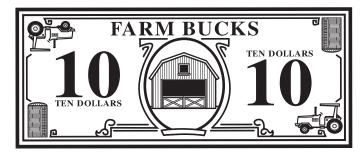




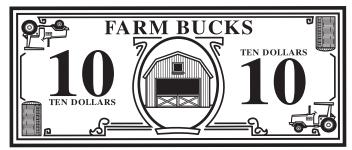


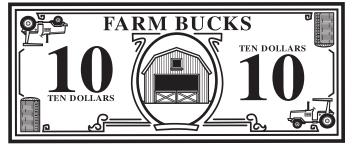


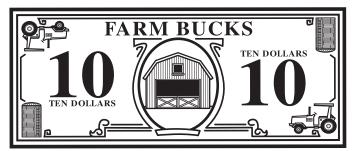
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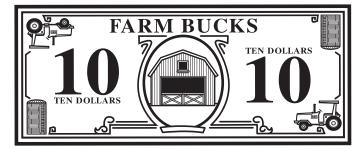




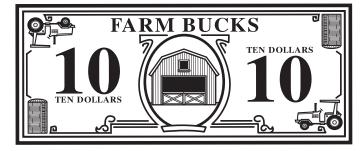




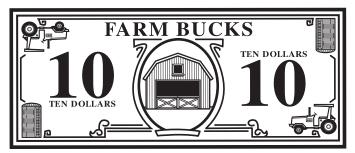














Set A11 Number & Operations: Multi-Digit Addition & Subtraction on the Farm Blackline			